

Jaimie

5. How much of each ingredient do you need for 15 dozen cookies? Draw pictures to show how you would represent the amounts you need.

$\frac{3}{4}$ cup butter

$\frac{1}{2}$ cup sugar

2 eggs

$\frac{1}{2}$ cup cream

1 tsp vanilla

1 cup flour

3 cups oatmeal

2 tsp baking powder

1 tsp salt

1 tsp cinnamon

1 cup chocolate chips

6 dozen cookies

$$\frac{1}{2} \times \frac{3}{4} = \frac{3}{8}$$

I'm going to divide everything in half in order to figure out the ingredients for 3 dozen cookies.

cup sugar

$\frac{1}{2} \div 2 = \frac{1}{4}$ cup sugar

$2 \div 2 = 1$ egg

$\frac{1}{2}$ cup cream $\div 2 = \frac{1}{4}$ cup cream

1 tsp vanilla $\div 2 = \frac{1}{2}$ tsp vanilla

1 cup flour $\div 2 = \frac{1}{2}$ cup flour

3 cups oatmeal $\div 2 = 1\frac{1}{2}$ cups oatmeal

2 tsp baking powder $\div 2 = 1$ tsp baking powder

1 tsp salt $\div 2 = \frac{1}{2}$ tsp salt

1 tsp cinnamon $\div 2 = \frac{1}{2}$ tsp cinnamon

1 cup chocolate chips $\div 2 = \frac{1}{2}$ cup chocolate chips

$\frac{3}{4}$ cup butter $\div 2 = \frac{3}{8}$ cup butter

3 dozen

* I am multiplying by 5 because 3 dozen fits into 15 dozen. ($3 \times 5 = 15$).

$$3/8 \text{ cup butter} \times 5 = 9/8 \text{ or } 1\frac{1}{8} \text{ cup butter}$$

$$1/4 \text{ cup sugar} \times 5 = 5/4 \text{ or } 1\frac{1}{4} \text{ cup sugar}$$

$$1 \text{ egg} \times 5 = 5 \text{ eggs}$$

$$1/4 \text{ cup cream} \times 5 = 5/4 \text{ or } 1\frac{1}{4} \text{ cup cream}$$

$$1/2 \text{ tsp vanilla} \times 5 = 2\frac{1}{2} \text{ tsp vanilla}$$

$$1/2 \text{ cup flour} \times 5 = 2\frac{1}{2} \text{ cup flour}$$

$$1\frac{1}{2} \text{ cup oatmeal} \times 5 = 7\frac{1}{2} \text{ cup oatmeal}$$

$$1 \text{ tsp baking powder} \times 5 = 5 \text{ tsp baking powder}$$

$$1/2 \text{ tsp salt} \times 5 = 2\frac{1}{2} \text{ tsp salt}$$

$$1/2 \text{ tsp cinnamon} \times 5 = 2\frac{1}{2} \text{ tsp cinnamon}$$

$$1/2 \text{ cup chocolate chips} \times 5 = 2\frac{1}{2} \text{ cup chocolate chips}$$

In conclusion, in order to make 15 dozen of cookies, you will need this amount of ingredients. $1\frac{1}{8}$ cup of butter, $1\frac{1}{4}$ cup of sugar, 5 eggs, $1\frac{1}{4}$ cup of cream, $2\frac{1}{2}$ tsp of vanilla, $2\frac{1}{2}$ cup of flour, $7\frac{1}{2}$ cups of oatmeal, 5 tsp of baking powder, $2\frac{1}{2}$ tsp of salt, $2\frac{1}{2}$ tsp of cinnamon, and $2\frac{1}{2}$ cups of chocolate chips. I got my answer by first splitting 6 dozen in half to make 3 dozen, which fits into 15 dozen ($3 \times 5 = 15$). Then I divided all of the ingredients that made 6 dozen, by 2. Then, when I got those answers, I multiplied them all by 5 because 3 dozen by 5 equals 15 dozen.